

HRC (HyperRel™ Composite) Highlights

Intermateable with MIL-C-38999 Series III Connectors

The HyperRel HRC is a high performance composite connector intermateable with MIL-C-38999 series III connectors. Our HyperRel connectors are built upon the legendary Hypertac contact technology that outperforms other interconnect options in terms of performance reliability, number of mating cycles, contact forces, contact resistance and value.

The combination of the legendary Hypertac contact with the superior design of the composite shell/insert take into consideration the connector, its contacts, and the respective strain reliefs to favorably influence intra-system life-cycle performance and costs.

Shells:

The total performance of the HRC connector is matched by individual components within the system. For example, the use of composite materials has increased the durability of the connector housing and coupling mechanism to 1500 cycles

Contacts:

Hypertronics' Hypertac contact design exceeds the increased performance requirements of today's systems.

- Up to 80% less mating force
- 50% reduction in resistance
- 300% increase in mating cycles
- Vibration/shock proven @ 2 nano second
- Five times more contact elements than the MIL-C-39029 (i.e. Size #22)
- Hypertac contact life expectancy (fretting) is 100 times longer than the MIL-C-39029 contact.

The HRC eliminates the largest contributing factor in advanced systems malfunction... corrosion, which is the main cause of mechanical, electrical, and electromagnetic connector degradation. Electromotive force differentials between many dissimilar metals found in connectors and accessories produce galvanic action. The HRC eliminates these dissimilar metals resulting in an interconnection system that withstands over 2000 hours of salt spray.

Specifications:

EMI shielding effectiveness

Meets and exceeds the requirements of MIL-C-38999, paragraph 3.3.1

Fluid immersion

Meets and exceeds the requirements of MIL-C-38999, paragraph 3.33

Temperature

*The metal surface will not delaminate from the composite material even after extreme temperature excursions.
The HRC meets all requirements of MIL-C-38999, paragraph 3.8*

Magnetic permeability

The magnetic permeability of the fully assembled HRC connector is less than 2.0 μ , meeting all the requirements of MIL-C-38999, paragraph 3.3.4

Materials

*All the materials used in the shell and inserts in the HRC are in accordance with MIL-C-38999, paragraph 3.3.
The contacts are in accordance with MIL-C-39029, paragraph 3.3*

Finish

*Shells: Meet the requirements of MIL-C-38999
Contacts: Meets the requirements of MIL-C-39029*

Insulation resistance

Meets all the requirements of MIL-C-38999, paragraph 3.13

Dielectric withstanding voltage

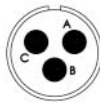
Meets all the requirements of MIL-C-38999, paragraph 3.14

A full complement of HRC (HyperRel Composite) Inserts

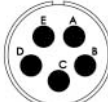
A-35
6 Size 22D Contacts



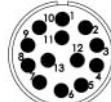
A-98
3 Size 20 Contacts



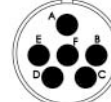
B-05
5 Size 20 Contacts



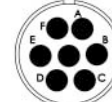
B-35
13 Size 22D Contacts



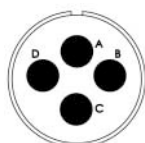
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6 Size 20 Contacts



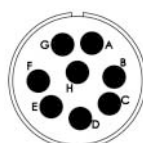
B-99
7 Size 20 Contacts



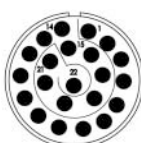
C-04
4 Size 16 Contacts



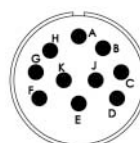
C-08
8 Size 20 Contacts



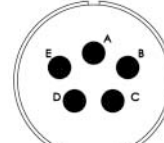
C-35
22 Size 22D Contacts



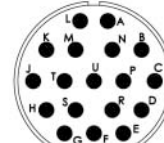
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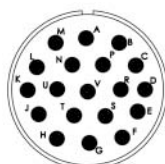
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5 Size 16 Contacts



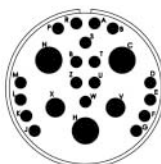
D-18
18 Size 20 Contacts



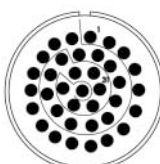
D-19
19 Size 20 Contacts



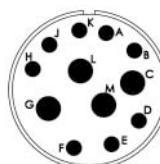
D-23
3 Size 16 Contacts
2 Size 20 Contacts
18 Size 22 Contacts



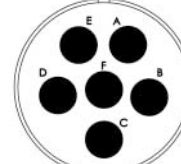
D-35
37 Size 22D Contacts



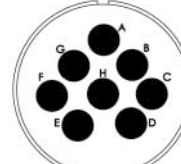
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4 Size 16 Contacts
8 Size 20 Contacts



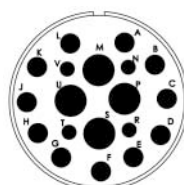
E-06
6 Size 12 Contacts



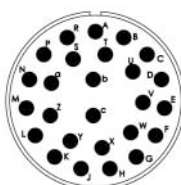
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8 Size 16 Contacts



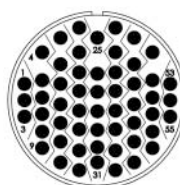
E-19
4 Size 16 Contacts
11 Size 20 Contacts
4 Size 22 Contacts



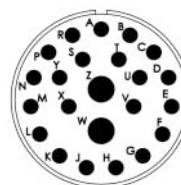
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26 Size 20 Contacts



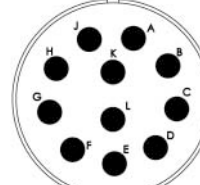
E-35
55 Size 22 D Contacts



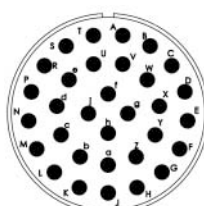
E-99
21 Size 20 Contacts
2 Size 16 Contacts



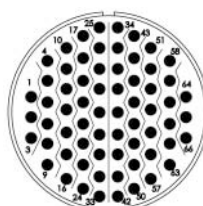
F-11
11 Size 16 Contacts



F-32
32 Size 20 Contacts

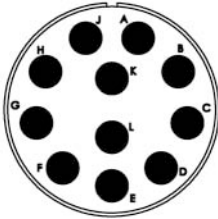


F-35
66 Size 22D Contacts

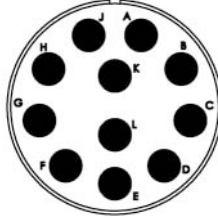


Arrangements are shown looking at pin face.
Cavity identifying letters and numbers are for reference only.
Actual marking shall be as required by applicable specifications.

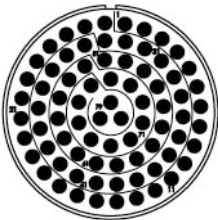
G-11
11 Size 12 Contacts



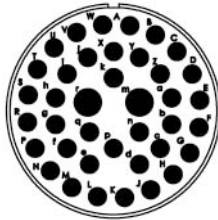
G-16
16 Size 16 Contacts



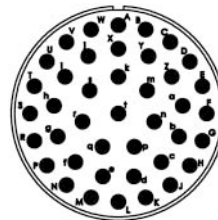
G-35
79 Size 22D Contacts



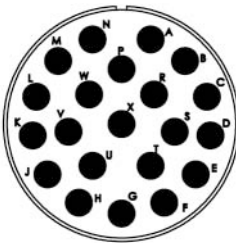
G-39
37 Size 20 Contacts



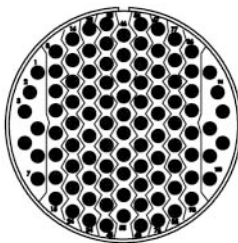
G-41
41 Size 20 Contacts



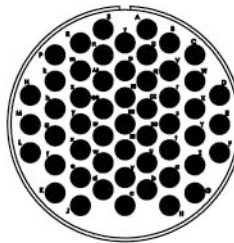
H-21
21 Size 16 Contacts



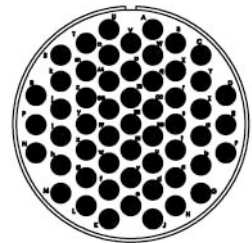
H-35
100 Size 22D Contacts



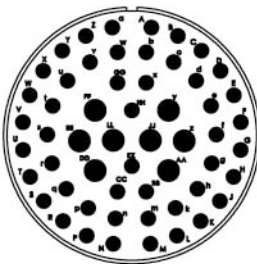
H-53
53 Size 20 Contacts



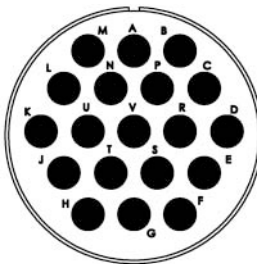
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55 Size 20 Contacts



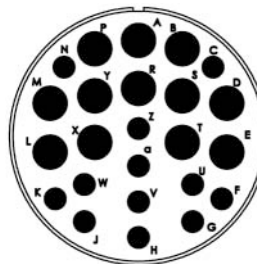
J-04
8 Size 16 Contacts
48 Size 20 Contacts



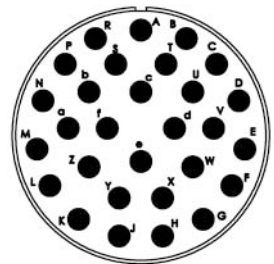
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19 Size 12 Contacts



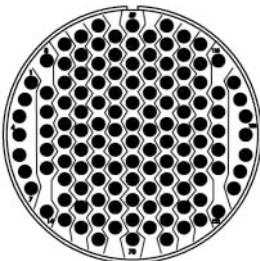
J-24
12 Size 12 Contacts
12 Size 16 Contacts



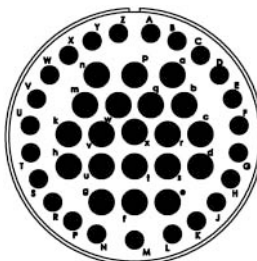
J-29
29 Size 16 Contacts



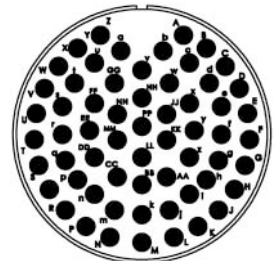
J-35
128 Size 22D Contacts



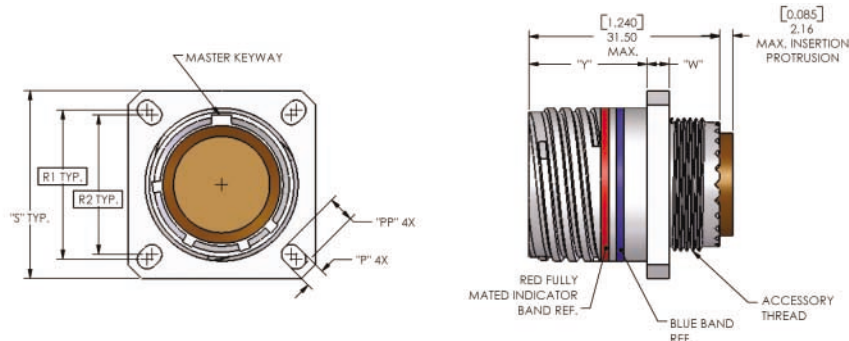
J-43
20 Size 6 Contacts
23 Size 16 Contacts



J-61
61 Size 20 Contacts



Square Flange Receptacle



Hypertronics P/N	Shell Size	Accessory Thread	P+.004/- .002	PP+.004/- .002	R1	R2	S +/- .001	Y Min.	W Max.
HRC 90*A****	A (9)	M12x1.0-6g 0.100R	.128	.216	.719	.594	.937	.768	.144
HRC 90*B****	B (11)	M15x1.0-6g 0.100R	.128	.194	.812	.719	1.031	.768	.144
HRC 90*C****	C (13)	M18x1.0-6g 0.100R	.128	.194	.906	.812	1.126	.768	.144
HRC 90*D****	D (15)	M22x1.0-6g 0.100R	.128	.173	.969	.906	1.220	.768	.144
HRC 90*E****	E (17)	M25x1.0-6g 0.100R	.128	.194	1.062	.969	1.311	.768	.144
HRC 90*F****	F (19)	M28x1.0-6g 0.100R	.128	.194	1.156	1.062	1.437	.768	.144
HRC 90*G****	G (21)	M31x1.0-6g 0.100R	.128	.194	1.250	1.156	1.563	.736	.171
HRC 90*H****	H (23)	M34x1.0-6g 0.100R	.154	.242	1.375	1.250	1.689	.736	.171
HRC 90*J****	J (25)	M37x1.0-6g 0.100R	.154	.242	1.500	1.375	1.811	.736	.171

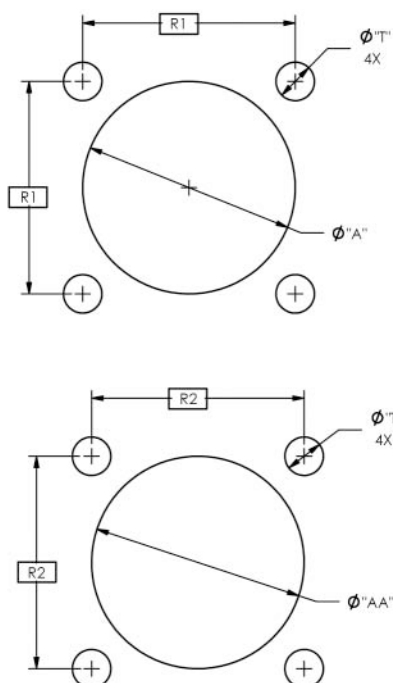
Mounting Cutouts

Back Panel Mounting

Max (R1) distance between mounting screws

Front Panel Mounting

Max (R2) distance between mounting screws

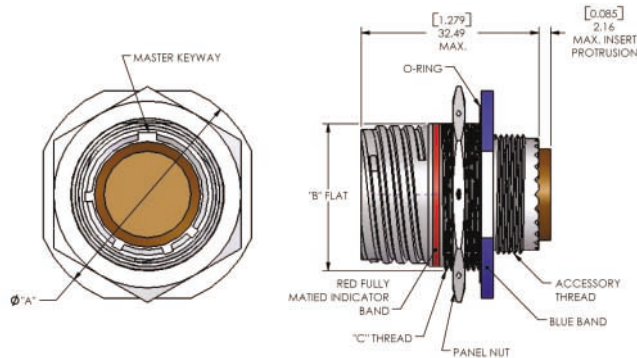


Shell Size	A Dis. Min.	AA Dis. Min.	R1	R2	T Dia. ±.005
A (9)	.656	.516	.719	.594	.128
B (11)	.795	.625	.812	.719	.128
C (13)	.922	.750	.906	.812	.128
D (15)	1.047	.906	.969	.906	.128
E (17)	1.219	1.016	1.062	.969	.128
F (19)	1.297	1.141	1.156	1.062	.128
G (21)	1.442	1.266	1.250	1.156	.128
H (23)	1.547	1.375	1.375	1.250	.154
J (25)	1.572	1.485	1.500	1.375	.154

Notes:

- Dimensions are in inches.
- R2 dimension may be substituted for mounting screw locations (R1) or front mount cutouts.

Jam Nut Receptacle

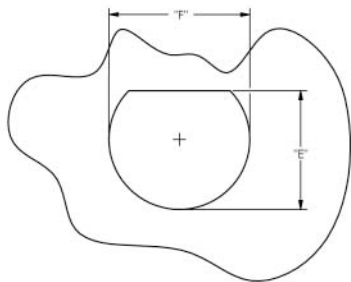


Hypertronics P/N	Shell Size	AØ ±.011	B ±.005	C Thread	Accessory Thread
HRC 94*A****	A (9)	1.189	.650	M17x1.0-6g 0.100R	M12x1.0-6g 0.100R
HRC 94*B****	B (11)	1.374	.750	M20x1.0-6g 0.100R	M15x1.0-6g 0.100R
HRC 94*C****	C (13)	1.500	.937	M25x1.0-6g 0.100R	M18x1.0-6g 0.100R
HRC 94*D****	D (15)	1.626	1.061	M28x1.0-6g 0.100R	M22x1.0-6g 0.100R
HRC 94*E****	E (17)	1.752	1.186	M32x1.0-6g 0.100R	M25x1.0-6g 0.100R
HRC 94*F****	F (19)	1.937	1.311	M35x1.0-6g 0.100R	M28x1.0-6g 0.100R
HRC 94*G****	G (21)	2.063	1.436	M38x1.0-6g 0.100R	M31x1.0-6g 0.100R
HRC 94*H****	H (23)	2.189	1.156	M41x1.0-6g 0.100R	M34x1.0-6g 0.100R
HRC 94*J****	J (25)	2.311	1.686	M44x1.0-6g 0.100R	M37x1.0-6g 0.100R

Jam Nut Mounting

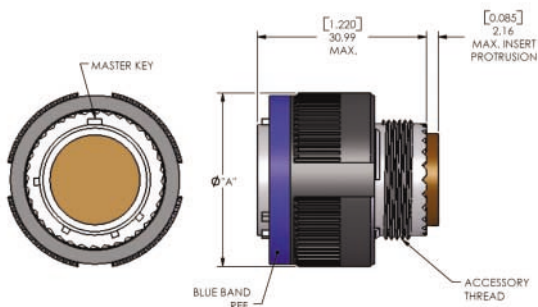
Panel thickness

0.062 - 0.126in. (1.58 - 3.2mm)



Shell Size	Inch-Lbs. Torque	E +.00 -.010	F +.010 -.00
A (9)	30/36	.670	.700
B (11)	40/45	.771	.825
C (13)	55/60	.955	1.010
D (15)	70/75	1.085	1.135
E (17)	80/85	1.210	1.360
F (19)	90/95	1.335	1.385
G (21)	100/110	1.460	1.510
H (23)	110/120	1.585	1.635
J (25)	120/130	1.710	1.760

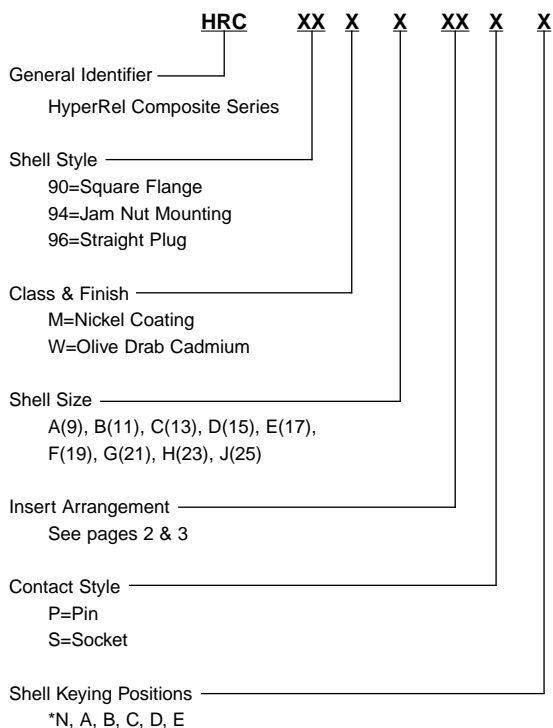
Plug



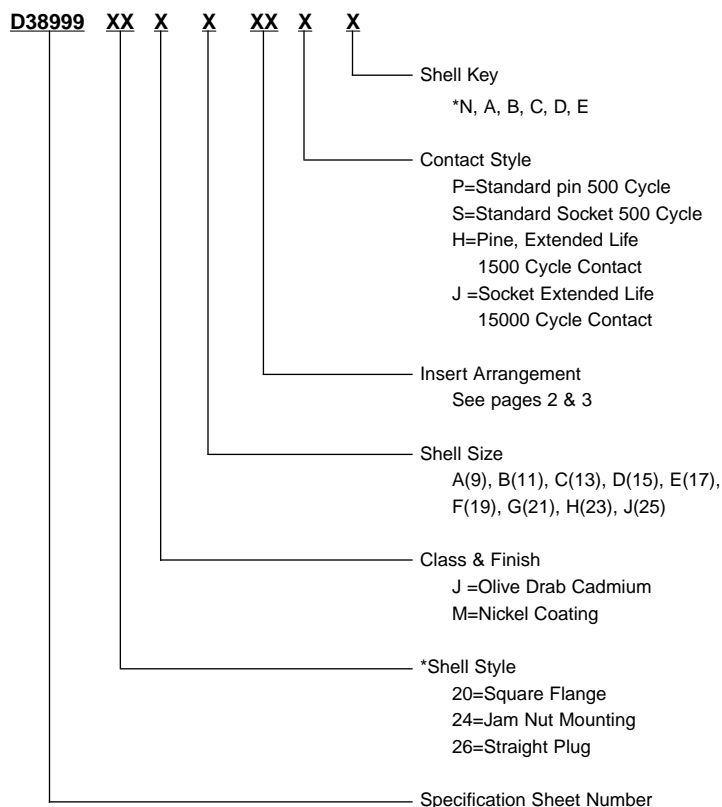
Hypertronics P/N	Shell Size	Accessory Thread	AØ Max
HRC 96*A****	A (9)	M12x1.0-6g 0.100R	.858
HRC 96*B****	B (11)	M15x1.0-6g 0.100R	.984
HRC 96*C****	C (13)	M18x1.0-6g 0.100R	1.157
HRC 96*D****	D (15)	M22x1.0-6g 0.100R	1.280
HRC 96*E****	E (17)	M25x1.0-6g 0.100R	1.406
HRC 96*F****	F (19)	M28x1.0-6g 0.100R	1.516
HRC 96*G****	G (21)	M31x1.0-6g 0.100R	1.642
HRC 96*H****	H (23)	M34x1.0-6g 0.100R	1.768
HRC 96*J****	J (25)	M37x1.0-6g 0.100R	1.890

HRC Ordering Information

Hypertronics Connector Part Numbers



HRC (Non Qpl'd Military Cross Reference)



* Consult factory for availability



**Configure and download 3D connector models
or 2D drawings on this product.**
Please visit www.hypertronics.com for more details

HRM (HyperRel™ Metal) Highlights

Intermateable with MIL-C-38999 Series III Connectors

The HyperRel HRM is a high performance metal connector with triple start, self-locking, threaded coupling and crimp-type terminations, intermateable with MIL-C-38999 Series III. Our HyperRel connectors are built upon the legendary Hypertac contact technology that outperforms other interconnect options in terms of performance reliability, number of mating cycles, contact forces, contact resistance and value.

The HyperRel HRM series is a rugged design that offers the maximum in vibration, shock and EMI resistance. A general duty threaded connector; the HRM series offers thicker wall sections and greater coupling surface with 100% metal-to-metal bottoming, a superior anti-coupling system, and a proven dielectric contact retention. The positive metal-to-metal coupling design, superior interfacial seals, and cadmium over nickel plating provide excellent EMI, moisture and corrosion resistance. In a 360° turn of the coupling nut, the HRM quickly mates and self locks. Blunting of the thread makes cross threading virtually impossible. Elongated mounting holes permit the HRM connector to intermount with existing standard MS/38999 box or wall mount receptacles, giving it a design replacement advantage.

Specifications:

Shock

High impact per MIL-S-901

EMI Shielding

Effective over a range of 100MHz to 10 GHz
With a minimum 50dB effectiveness at 10GHz

Insulation Resistance

5000 megaohms min at +25°C (+77°F)

Corrosion (Class W)

500 hours salt spray per MIL-C-38999

Crimp Contact Rating and Wire AWG

22D - 5.0 amps. (accepts 22 thru 28 AWG)
20 - 7.5 amps. (accepts 20 thru 24 AWG)
16 - 13.0 amps. (accepts 16 thru 20 AWG)
12 - 23.0 amps. (accepts 12 thru 14 AWG)

Contact Resistance (Size 22D)

50% reduction in contact resistance compared to MIL-C-39029

Vibration / Shock (Size 22D)

Proven @ 2 nano seconds compared to MIL-C-39029
(which is proven @ 1 micro second)

Fluid Immersion

Fluid resistant to many fuels, coolants and solvents per MIL-C-38999

Mating Force

Up to 80% less mating force.

Mating Cycles

300% increase in mating cycles compared to MIL-C-39029 requirements.

Contact Elements (Size 22D)

10 off springs compared to 2 off springs on a MIL-C-39029 contact. Five times more contact elements means higher reliability.

Contact Points (Size 22D)

10 off lines compared to 4 off points on a MIL-C-39029 contact. Infinitely more points (reliability)

Fretting (Size 22D)

Hypertac hyperboloid contact has a life expectancy 100 times greater than MIL-C-39029 requires.

Materials

Shell – Aluminum alloy
Contacts – Copper alloy
Inserts – Plastic; Silicone

Finish

Shell – O.D. cad over nickel (class W)
– nickel plated (class F)
Contacts – gold over nickel

HRM (HyperRel Metal) Insert Arrangements

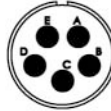
9-35
6#22D Contacts



9-98
3#20 Contacts



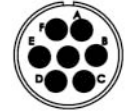
11-5
5#20 Contacts



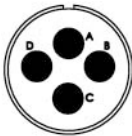
11-35
13#22D Contacts



11-99
7#20 Contacts



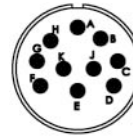
13-4
4#16 Contacts



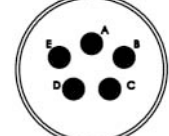
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22#22D Contacts



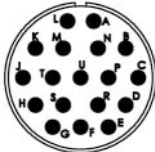
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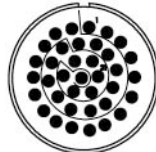
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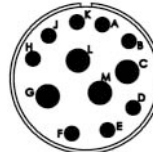
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18#20 Contacts



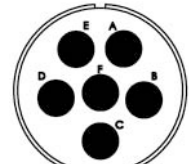
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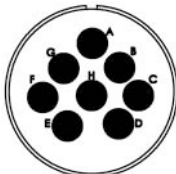
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8#20 Contacts
4#16 Contacts



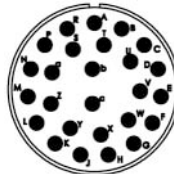
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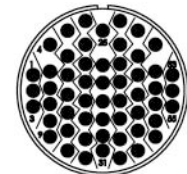
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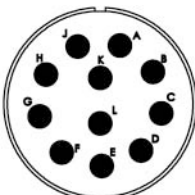
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26#20 Contacts



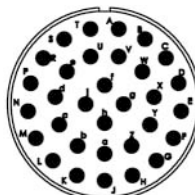
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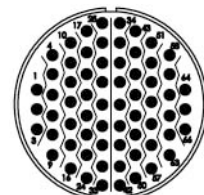
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11#16 Contacts



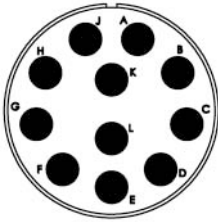
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32#20 Contacts



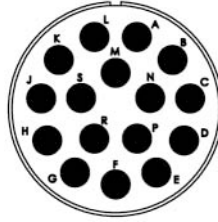
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66#22D Contacts



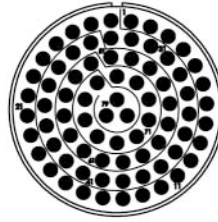
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11#12 Contacts



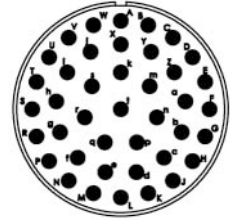
21-16
16#16 Contacts



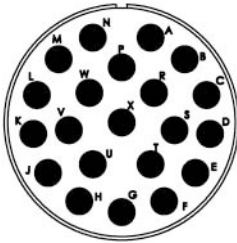
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79#22D Contacts



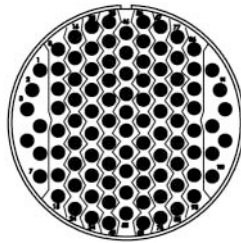
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41#20 Contacts



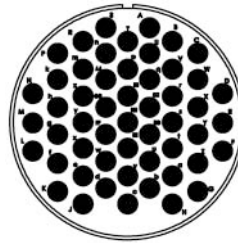
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21#16 Contacts



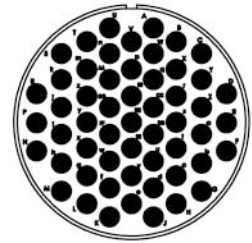
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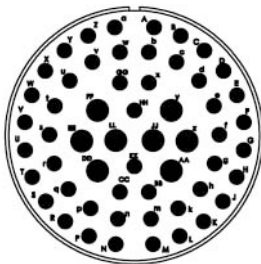
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53#20 Contacts



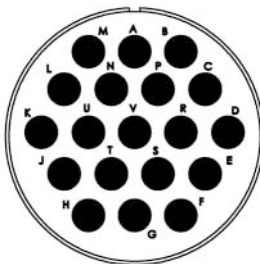
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55#20 Contacts



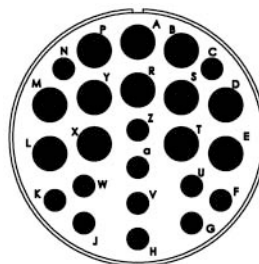
25-4
48#20 Contacts
8#16 Contacts



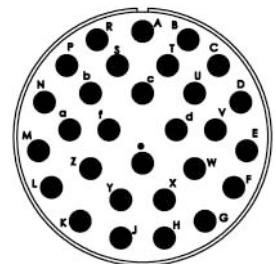
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19#12 Contacts



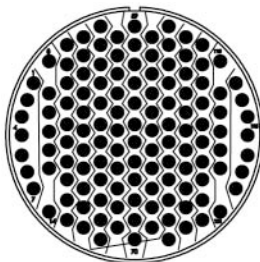
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12#16 Contacts
12#12 Contacts



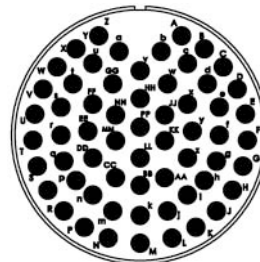
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29#16 Contacts



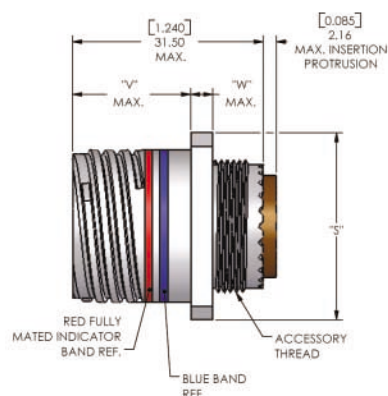
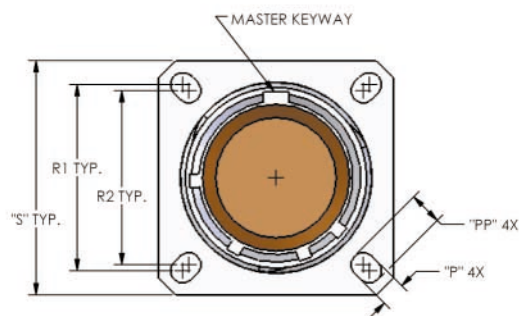
25-35
128#22D Contacts



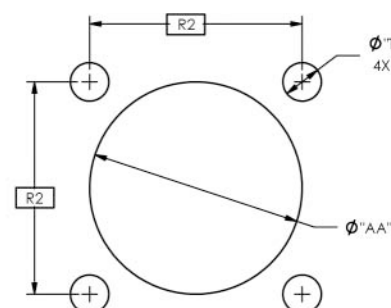
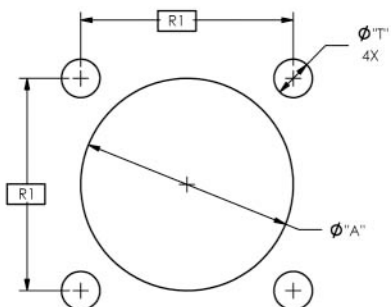
25-61
61#20 Contacts



Arrangements are shown looking at pin face. Cavity identifying letters and numbers are for reference only. Actual marking shall be as required by applicable specifications.

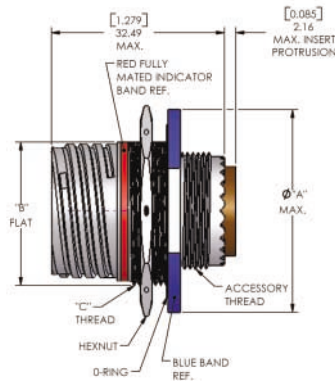


Hypertronics P/N	Shell Size	Accessory Thread	P+.004/-.002	PP+.004/-.002	R1	R2	S +/- .001	V Max.	W Max.
HRM20*9*****	9	M12x1.0-6g 0.100R	.128	.216	.719	.594	.937	.822	.098
HRM20*11*****	11	M15x1.0-6g 0.100R	.128	.194	.812	.719	1.031	.822	.098
HRM20*13*****	13	M18x1.0-6g 0.100R	.128	.194	.906	.812	1.126	.822	.098
HRM20*15*****	15	M22x1.0-6g 0.100R	.128	.173	.969	.906	1.220	.822	.098
HRM20*17*****	17	M25x1.0-6g 0.100R	.128	.194	1.062	.969	1.311	.822	.098
HRM20*19*****	19	M28x1.0-6g 0.100R	.128	.194	1.156	1.062	1.437	.822	.098
HRM20*21*****	21	M31x1.0-6g 0.100R	.128	.194	1.250	1.156	1.563	.791	.126
HRM20*23*****	23	M34x1.0-6g 0.100R	.154	.242	1.375	1.250	1.689	.791	.126
HRM20*25*****	25	M37x1.0-6g 0.100R	.154	.242	1.500	1.375	1.811	.791	.126



Shell Size	A Dis. Min.	AA Dis. Min.	R1	R2	T Dia. $\pm .005$
9	.656	.516	.719	.594	.128
11	.795	.625	.812	.719	.128
13	.922	.750	.906	.812	.128
15	1.047	.906	.969	.906	.128
17	1.219	1.016	1.062	.969	.128
19	1.297	1.141	1.156	1.062	.128
21	1.442	1.266	1.250	1.156	.128
23	1.547	1.375	1.375	1.250	.154
25	1.572	1.485	1.500	1.375	.154

Jam Nut Receptacle

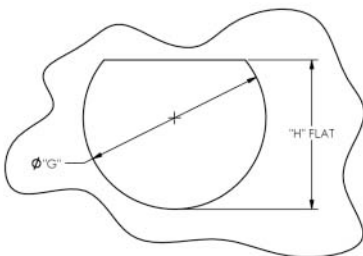


Hypertronics P/N	Shell Size	Accessory Thread	A Max	B Flat $\pm .004/- .006$	C Thread
HRM24*9*****	9	M12x1.0-6g 0.100R	1.200	.651	M17x1-6g 0.100R
HRM24*11*****	11	M15x1.0-6g 0.100R	1.385	.751	M20x1-6g 0.100R
HRM24*13*****	13	M18x1.0-6g 0.100R	1.511	.938	M25x1-6g 0.100R
HRM24*15*****	15	M22x1.0-6g 0.100R	1.637	1.062	M28x1-6g 0.100R
HRM24*17*****	17	M25x1.0-6g 0.100R	1.763	1.187	M32x1-6g 0.100R
HRM24*19*****	19	M28x1.0-6g 0.100R	1.948	1.312	M35x1-6g 0.100R
HRM24*21*****	21	M31x1.0-6g 0.100R	2.074	1.437	M38x1-6g 0.100R
HRM24*23*****	23	M34x1.0-6g 0.100R	2.200	1.562	M41x1-6g 0.100R
HRM24*25*****	25	M37x1.0-6g 0.100R	2.322	1.687	M44x1-6g 0.100R

Jam Nut Mounting

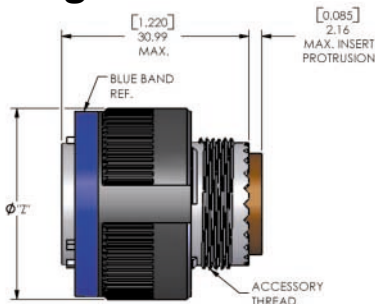
Panel thickness

0.062 - 0.126in. (1.58 - 3.2mm)



Shell Size	H Flat $\pm .000/- .010$	G Dia. $\pm .010/- .000$
9	.669	.697
11	.769	.822
13	.955	1.007
15	1.084	1.134
17	1.208	1.259
19	1.333	1.384
21	1.459	1.507
23	1.584	1.634
25	1.709	1.759

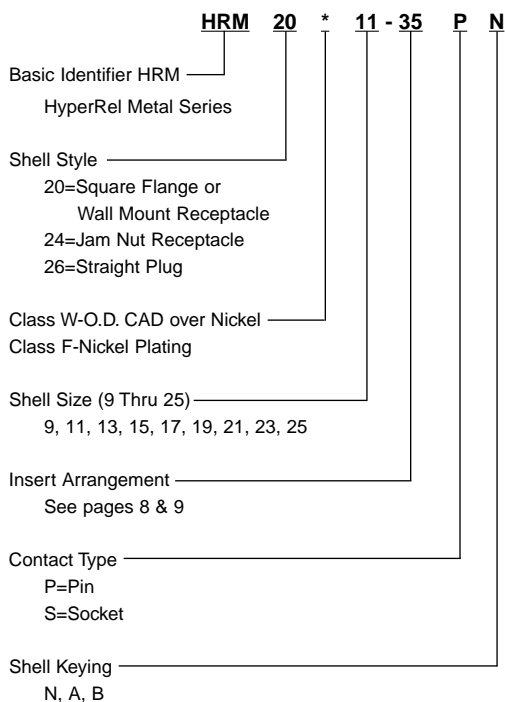
Plug



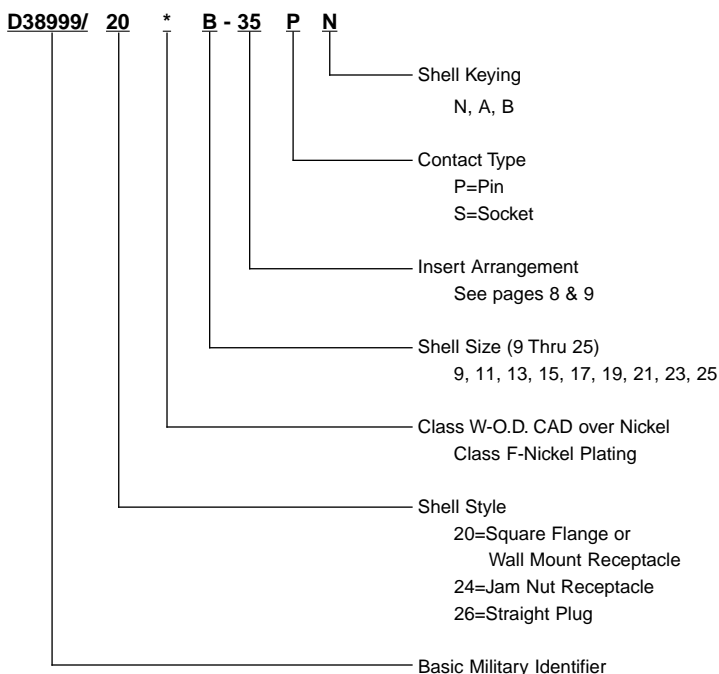
Hypertronics P/N	Shell Size	Accessory Thread	Z Dia Max
HRM26*9*****	9	M12x1.0-6g 0.100R	.858
HRM26*11*****	11	M15x1.0-6g 0.100R	.984
HRM26*13*****	13	M18x1.0-6g 0.100R	1.157
HRM26*15*****	15	M22x1.0-6g 0.100R	1.279
HRM26*17*****	17	M25x1.0-6g 0.100R	1.405
HRM26*19*****	19	M28x1.0-6g 0.100R	1.515
HRM26*21*****	21	M31x1.0-6g 0.100R	1.641
HRM26*23*****	23	M34x1.0-6g 0.100R	1.768
HRM26*25*****	25	M37x1.0-6g 0.100R	1.889

HRM Ordering Information

Basic Hypertronics Part Numbers



HRM (Non Qpl'd Military Cross Reference)



* Refer to page 13 for Protective Covers

* Refer to page 14 for Lightweight Tie Type Strain Relief

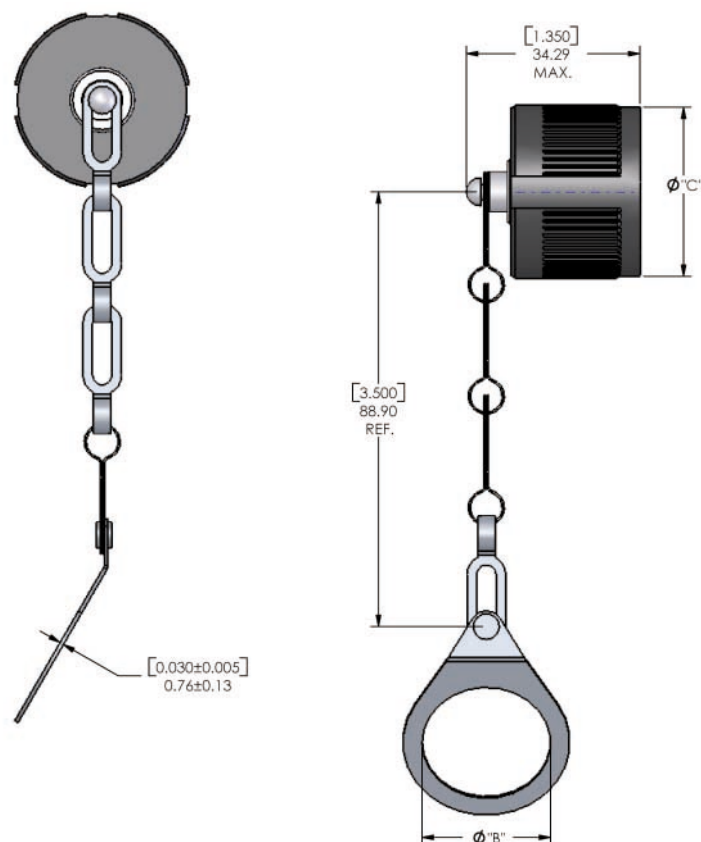


Configure and download 3D connector models
or 2D drawings on this product.
Please visit www.hypertronics.com for more details

Contact and Tooling Information

Size	Contact Hypertronics Part Number	Style	Wire Gauge	Crimp Tool (Positioner)	Military Insertion Extraction Tool	Strip Length	Sealing Plugs Hypertronics Part Number	Color Code
22D	YPN0076-145	Pin	22 thru 28	M22520/7-01	M81969/14-01	.160 - .190	MS27488-22	Green
22D	YSK0076-181	Socket	22 thru 28	M22520/7-01	M81969/14-01	.160 - .190	MS27488-22	Green
20	YPN0102-037	Pin	20 thru 24	M22520/1-01	M81969/14-10	.230 - .260	4113-4-2001	Red
20	YSK0102-095	Socket	20 thru 24	M22520/1-01	M81969/14-10	.230 - .260	4113-4-2001	Red
16	YPN0158-003	Pin	20 thru 16	M22520/1-01	M81969/14-03	.230 - .260	0613-1-1601	Blue
16	YSK0158-012	Socket	20 thru 16	M22520/1-01	M81969/14-03	.230 - .260	0613-1-1601	Blue
12	YPN0239-001	Pin	12 thru 14	M22520/1-01	M81969/14-04	.230 - .260	0613-1-1201	Yellow
12	YSK0239-001	Pin	12 thru 14	M22520/1-01	M81969/14-04	.230 - .260	0613-1-1201	Yellow

Protective Covers for HRM Connectors



Part Numbers

59503 * ** - ****

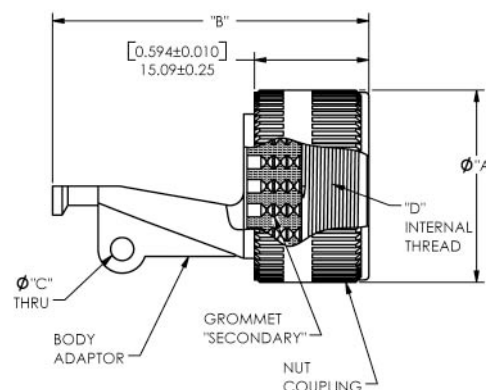
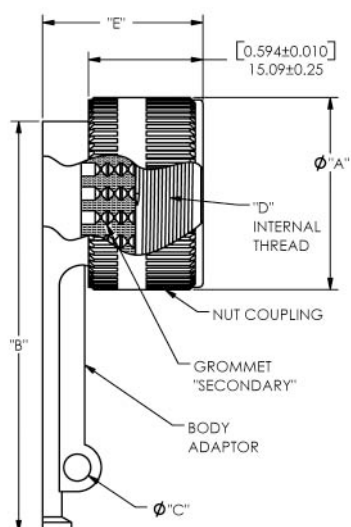
- Modification
 - 1E = No Lanyard
 - 2E = Lanyard Chain No Ring
- Connector Size
 - 9, 11, 13, 15, 17, 19, 21, 23, 25
- Finish
 - D = Natural
 - E = Natural Locking
 - M = Nickel, Shielding, Locking
 - W = Olive Drab Cadmium, Shielding, Locking
- General Identifier
 - 59503 = Dust Cover for Receptacles with Mounting Chain and Retaining Washer

Available in both environmental and environmental RFI/EMI (Shielding).

General Information

Lightweight, Strain Relief, Tie Type

The HRC provides additional environment protection by offering a systems approach to rear accessories. The HRC Strain Relief, Tie-Type is made from durable, lightweight, corrosion proof composite materials, and is supplied with a secondary grommet. The secondary grommet provides true strain relief and vibration dampening while providing dynamic moisture intrusion seals.



Shell Size	±.015 AØ	±.080 B	±.010 CØ	D Metric Thread	±.015 E
A	.650	1.948	.140	M12X1.0-6H0.100R	.832
B	.775	2.010	.140	M15X1.0-6H0.100R	.832
C	.905	2.075	.140	M18X1.0-6H0.100R	.832
D	1.030	2.135	.140	M22X1.0-6H0.100R	.832
E	1.160	2.198	.140	M25X1.0-6H0.100R	.832
F	1.270	2.258	.140	M28X1.0-6H0.100R	.832
G	1.400	2.320	.140	M31X1.0-6H0.100R	.832
H	1.525	2.383	.140	M34X1.0-6H0.100R	.832
J	1.655	2.445	.140	M37X1.0-6H0.100R	.832

Shell Size	±.015 AØ	±.080 B	±.010 CØ	D Metric Thread
A	.650	1.642	.120	M12X1.0-6H0.100R
B	.775	1.642	.120	M15X1.0-6H0.100R
C	.905	1.642	.120	M18X1.0-6H0.100R
D	1.030	1.642	.120	M22X1.0-6H0.100R
E	1.160	1.642	.140	M25X1.0-6H0.100R
F	1.270	1.642	.140	M28X1.0-6H0.100R
G	1.400	1.642	.140	M31X1.0-6H0.100R
H	1.525	1.642	.140	M34X1.0-6H0.100R
J	1.655	1.642	.140	M37X1.0-6H0.100R

Strain Relief Ordering Information

Hypertronics Strain Relief Part Numbers

	HRC00	X	B	-	X	-	XX	XX	X
General Identifier									
HyperRel Composite Series									
Rear Accessories									
Finish									
A=Black Composite, Unplated									
*M=Nickel, Plated									
*W=Olive Drab Cadmium									
Shell Size									
A(9), B(11), C(13), D(15), E(17),									
F(19), G(21), H(23), J(25)									
Type									
EL=Straight									
EN=90 Degree									
Cable Code									
See Cable Insert Arrangement Table									
Contact Style									
P=Pin									
S=Socket									

* Consult factory for availability.

Cable Insert Arrangements

Cable Code	Insert Arrangements
38	A-35
39	A-98
40	B-05
41	B-35
42	B-99
43	C-04
44	C-35
45	C-98
46	D-05
47	D-18
48	D-35
49	D-97
50	E-06
51	E-08
52	E-26

Cable Code	Insert Arrangements
53	E-35
54	F-11
55	F-32
56	F-35
57	G-11
58	G-16
59	G-35
60	G-41
61	H-21
62	H-35
63	H-53
64	H-55
65	J-04
66	J-19
67	J-20

Cable Code	Insert Arrangements
68	J-24
69	J-29
70	J-35
71	J-61
92	B-98
93	D-19
94	C-08
95	E-99
96	G-39
97	J-43
98	D-23
99	E-19
100	J-20

Hypertronics. When failure is not an option.

Hypertronics has been the leader in the design, manufacture and distribution of high reliability connectors for the electronics industry since 1970. As part of Smiths Group, a multinational company headquartered in the UK, Hypertronics specializes in providing highly engineered connector solutions to global niche markets and applications requiring unfailing performance and reliability.

High Reliability Connectors - Hypertac® Technology

All of Hypertronics products are built upon the patented Hypertac Contact design, which outperforms other interconnect options in terms of performance reliability, number of mating cycles, contact forces, contact resistance, and value. Hypertac contacts feature a hyperboloid-shaped basket of individual spring wires that provide up to 100,000 mating cycles, nearly half the resistance of conventional contact designs, immunity to shock and vibration, extremely low insertion/extraction forces, and 360-degree wiping action.

To Meet or Exceed Our Customer Expectations

Hypertronics provides customers with the highest degree of engineering, manufacturing and customer service in order to meet the industry's most demanding application requirements. Hypertronics is ISO 9001 certified.

Custom Connector Designs

The company's expertise is precision design and manufacturing of electronic interconnect systems. Hypertronics engineers work directly with customers to develop unique solutions that address specific customer needs and industry requirements. The combination of engineering talent and in-house manufacturing capabilities, such as 3D solid modelling, rapid prototyping, high precision assembly and injection molding, provide customers with quick turnaround on custom designs.

Custom Cable Assemblies

Hypertronics provides end-to-end solutions for OEMs who require unsurpassed reliability from both the connectors and the cabling. This also eliminates the need for customers to procure from multiple sources, resulting in a shorter supply chain and cost effective system designs.

Environmental Policy

Hypertronics is a world class manufacturer and provider of interconnect solutions and is committed to comply with all applicable environmental legislation and regulations. Hypertronics is dedicated to continuous improvement in our interaction with the environment including the prevention of pollution. Hypertronics is ISO 14001 certified.



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smiths

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HYP-020-0505*